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PROGRESS IN THE IMPLEMENTATION OF THE PROGRAMME OF ACTION FOR THE SUSTAINABLE DEVELOPMENT OF SMALL ISLAND DEVELOPING STATES

Sustainable development of coastal areas, tourism, energy resources, air transport, maritime transport, telecommunications, and management of natural and environmental disasters in small island developing States

Report of the Secretary-General

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INTRODUCTION

1. The General Assembly, in its resolution 49/122 of 19 December 1994, requested the Commission on Sustainable Development to carry out, in 1996, an initial review of the progress achieved and steps taken to implement the Programme of Action for the Sustainable Development of Small Island Developing States. 1/ To meet that request, the Inter-Agency Committee on Sustainable Development, at its meeting in July 1995, decided, inter alia, that a separate report should be prepared on each of the following issues identified in the Programme of Action: coastal area management, tourism resources, air transport, maritime transport, telecommunications, energy resources, and natural and environmental disasters. These reports are to be found in the seven addenda to the present report, as follows:

(a) Management of natural and environmental disasters in small island developing States (E/CN.17/1996/20/Add.1);

(b) Sustainable development of energy resources in small island developing States (E/CN.17/1996/20/Add.2);

(c) Sustainable tourism development in small island developing States (E/CN.17/1996/20/Add.3);

(d) Maritime transport in small island developing States (E/CN.17/1996/20/Add.4);

(e) Sustainable development of air transport in small island developing States (E/CN.17/1996/20/Add.5);

(f) Development of communications in small island developing States (E/CN.17/1996/20/Add.6);

(g) Coastal area management in small island developing States (E/CN.17/1996/20/Add.7).

2. The present report pulls together the seven themes and presents the major additional findings that serve to deepen understanding of the issues in each sector as task managers in the various United Nations bodies have reflected on the basis for action agreed upon in the Programme of Action.

3. The report does not reiterate the actions and policies to which Governments committed themselves in adopting the Programme of Action.

4. Based on the analysis provided by the task managers in each area, the present report instead contains a menu of recommendations which, if implemented along with those contained in the Programme of Action, would enhance sustainable development in the respective areas. In some cases, the recommended measures can be considered as complementary. In other cases, they add greater specificity to the measures agreed in the Programme of Action.

I. COASTAL AREA MANAGEMENT 2/

A. Major additional findings

5. In addition to the basis for action described in chapter IV of the Programme of Action, it may be noted that problems of coastal area management in small island developing States (SIDS) stem from inappropriate development policies and practices, the absence of integrated approaches to the management and conservation of resources, inadequate institutional and infrastructural capacity, limited human resource capacity, and a lack of public awareness of and involvement in the issues of coastal area management.

6. Given the importance of coastal resources, the authorities in many small island States have begun putting in place some measures for safeguarding those resources. So far, the focus of action has been mainly on particular subsectors whose problems are the most severe. Effective management will call for the following priority policies and measures.

B. Recommendations for action

At the national level

7. Policy development: Adoption of appropriate policies and economic instruments for the internalization of the environmental costs of coastal resource use and for their rational management with a view to changing patterns of use and exploitation.

At the regional level

8. Marine pollution standards: Establishment at the regional level of appropriate criteria for sewage, effluents and coastal water standards in order to deal effectively with coastal and nearshore water pollution.

At the international level

9. For effective coastal area management, SIDS will need the cooperation of the international community in the following area:

International coordination: Coordination of the activities of international organizations in SIDS, with a view to enhancing their effectiveness in realizing the goals of integrated coastal area management (ICAM).

II. SUSTAINABLE TOURISM

A. Major additional findings

10. Looking to the future, there are indications that the development of tourism in SIDS will be subject to two current global trends. First, global travel and tourism output is expected to grow more rapidly in coming years,

outpacing the growth of world economic output. This trend is expected to reinforce current trends in SIDS. Secondly, tourism development in SIDS will be shaped by the growing interest in, and demand for, specialty tourism, particularly nature tourism propelled by growing environmental awareness.

11. From the point of view of the future course of action, the following findings on the economic, social and environmental aspects of tourism in SIDS are worthy of note:

(a) Economic aspects: (i) Generally, the leakages through imports out of direct tourist expenditures to meet the needs of the tourism sector itself are extremely high in SIDS; (ii) the daily expenditures per visitor vary from country to country but are generally low; (iii) excessive reliance on tourism carries many risks, including excessive exposure to international economic shocks, and weakening of intersectoral linkages which, inter alia, reduces the potential benefits from tourism;

(b) Social aspects: Rapid development of tourism, particularly mass tourism, can have significant adverse social impacts on small islands. The following are of particular significance: (i) persistent inflationary pressures pose the danger of significantly lowering the standard of living of high proportions of island populations; (ii) the social carrying capacity of small islands quickly reaches its limits of tolerance as the ratio of visitors to the local population rises; (iii) prolonged growth of mass tourism is accompanied by increased incidence of crime, and spread of drugs and diseases, including the human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), both of which can devastate the small populations of small islands;

(c) Environmental aspects: Intensive tourism development and tourism activities, particularly if not properly planned and managed, can very quickly cause environmental damages in SIDS. The most notable impacts are observable in (i) land degradation and loss of terrestrial and marine biodiversity; (ii) increased levels of pollution from dumping of solid and liquid wastes generated by tourism activities on land and in the sea; (iii) coastal zone degradation through intensive sand mining, removal of mangrove forests and destruction of coral reefs, soil erosion and destruction of landscape owing to tourism facilities and associated infrastructures; (iv) excessive groundwater pumping and consequent lowering of water tables to meet the demand of the water-intensive tourism industry for freshwater.

B. Recommendations for action

At the national level

(a) Policies and measures for enhancing economic benefits

12. Policy: Enhance the economic benefits from tourism by: (i) diversifying the tourism product, enhancing its quality and increasingly targeting the upper segment of the tourist market; (ii) strengthening linkages of other economic sectors with tourism so that domestic production can viably provide for the consumer needs of tourists to the maximum extent possible; (iii) increasing the

participation of nationals in the tourism sector by encouraging domestic investments and, as necessary, joint ventures with foreign investors so as to minimize the proportion of profits generated by the tourism sector that are repatriated by foreign investors; (iv) encouraging the maximum use of local materials in resort construction so as to reduce the imports of construction materials; (v) increasing investments in the training of local people for the tourist industry in order to reduce dependence on foreign entities, particularly in the area of overseas promotion and marketing, ground handling and domestic operation of tourism services; and (vi) minimizing financial incentives granted to foreign investors, by reducing national risks.

13. Information: Invest adequately in the collection of data on all relevant indicators of benefits and costs necessary for costs-benefits analysis in order to be able to carry out systematic evaluations of the contribution of the tourism sector to the domestic economy in relation to other sectors and in relation to social and environmental costs.

(b) Measures for coping with the adverse social and cultural impacts of tourism

14. Policy: Make efforts to keep the ratio of the visitor population to the local population at an acceptable level through appropriate diversification of the tourism product and the tourist market, particularly if mass tourism has been promoted for a long time in the past.

15. Public education: Develop and put in place effective educational programmes to raise the awareness of the local population about the good and bad aspects of tourism. Such programmes need to emphasize tourism as cultural exchange, counter undesirable demonstration effects of tourists' lifestyles on the local culture and consumer habits and emphasize the pernicious consequences of the spread of drugs and diseases, particularly HIV/AIDS.

16. Security: Strengthen security measures country-wide against crime and drugs, particularly in areas most frequented by tourists.

(c) Measures for coping with environmental impacts

17. Project appraisal: Develop a multidisciplinary approach for rigorous vetting of tourism development proposals, taking into account prospective cumulative impacts of tourism development, and establish environmental standards for approval of projects.

18. Economic instruments: (i) Review and revise, as appropriate, existing taxes and subsidies to ensure that they are in fact conducive to sustainable development, and develop additional economic instruments to better internalize environmental costs, for example, fiscal incentives or grants or loans for creating or improving the necessary environmental infrastructure, such as sanitation plants, existing facilities and deposit-refund systems for containers of beverages and other canned goods to discourage littering; (ii) develop and impose appropriate user fees for the use of national terrestrial and marine parks and reserves, and earmark the accrued receipts for purposes of improvement and management of sensitive areas; (iii) require the tourism industry, through

appropriate user charges, to meet the full cost of freshwater it uses, and to contribute adequately to solid waste management and cleaning of beaches.

19. Sustainable marketing: Define and implement a sustainable marketing strategy in cooperation with all partners involved in the tourism industry.

At the regional level

20. Sustainable marketing: Define and implement a sustainable marketing strategy at the regional level.

21. Financial incentives to foreign investors: Adopt uniform incentives at the regional level to reduce competition among SIDS to attract foreign capital.

At the international level

22. Financial and technical assistance: (a) Provide international assistance for the development of basic physical infrastructures such as airports and harbours, roads, telecommunications systems and freshwater systems to SIDS, especially the least developed among them; (b) provide assistance to regional tourism organizations in order to increase their effectiveness.

23. Code of conduct: Formulate, ratify and enforce a universal or at least a regional code of conduct for the tourism sector at the intergovernmental level.

III. ENERGY RESOURCES

A. Major additional findings

Energy demand

24. Imported petroleum products, the major source of energy, are used for transportation and electricity generation. On average, more than a third of the petroleum is converted to electricity. Electricity generation is costly because most systems are on a small-to-very-small scale. In a number of SIDS, the share of petroleum imports in total imports is comparable to that of other developing countries. In a number of others, however, it is much higher, exceeding the value of total merchandise exports.

25. Solar energy is used for water heating in urban houses as well as commercial establishments, for drying of crops and for water purification and distillation on a limited scale. For instance, in recent years, the use of solar energy has increased in the Pacific islands. Following a number of demonstration projects in the early 1980s, solar water heating has increased in the Pacific islands, particularly in upper-income homes, hotels and commercial establishments. Solar photovoltaic systems have also been used as an alternative to diesel generation for the electrification of remote areas.

Energy resources

26. Of renewable sources of energy, other than hydropower, biomass accounts for the major share in small island countries. Fuelwood is most commonly used for cooking, especially in rural households. Practically, all fuelwood for cooking is obtained at no financial cost from natural forests. Very few island countries have forest areas covering a substantial part of their land area and few of them have any sizeable commercial production of fuelwood. Increased demand for fuelwood has led to much deforestation in many SIDS. In addition to wood, residues from agricultural commodities constitute a significant source of energy.

27. Prospects have been improving for electricity generation by wind turbines, but much depends on the availability of suitable sites. Several SIDS have favourable sites for wind energy; they are, however, prone to severe storm conditions. Most islands have abundant solar and ocean resources; some also have significant hydropower potential. A number of them also have geothermal resources. However, in spite of some efforts to develop indigenous energy resources, the overall contribution of renewable energy sources to the energy balance of most SIDS has remained small.

28. The development of indigenous new and renewable sources of energy should focus on the few options that hold out the promise of technical, economic and financial viability. The renewable energy technologies and resources that appear to be more promising in the near term are solar photovoltaic-based utilities, particularly for remote islands; large-scale and mini-hydropower plants, where adequate sites and institutional support are available; wind turbine generators, depending on favourable wind regimes; and the enhanced use of biomass fuel, where good sustainable biomass cover exists. In the long term, ocean thermal and seawave power may prove to be substantial energy sources, although so far attempts at their commercial development have not met with success.

B. Recommendations for action

29. Finance: To implement projects that would ensure a sustainable fuelwood industry, seek assistance from the international community, including from the Global Environment Facility (GEF), for commercial energy development based on those renewable sources with demonstrated viability, and to assist with the financing of investments necessary to expand energy supplies beyond urban areas.

IV. NATURAL AND ENVIRONMENTAL DISASTERS

A. Major additional findings

30. A critical factor in the vulnerability of SIDS is their limited capacity to reactivate the development process, in particular in the least developed small island States. The fragility of their ecosystems and their limited human resources often preclude any possibility of developing and implementing meaningful disaster-mitigation programmes and the substantive vulnerability

studies called for in this respect. In many of them, forecasting and warning dissemination systems are inadequate, affordable insurance against disasters is unavailable and disaster emergency funds are lacking.

31. Equally, environmental hazards can have serious impacts on small island States. The pollution of marine living resources, both from land-based sources and transit shipping, is an area of particular concern.

32. Progress has been made to varying degrees in addressing disaster problems in most small island developing States. In the small island States in the Caribbean and the South Pacific subregions, progress relates primarily to the strengthening and building of institutional disaster-management capacities at the national and local levels, as well as to the promotion of respective regional and subregional levels. The small island States outside those subregions have been generally less successful in realizing concrete progress in disaster reduction. This may be attributable in part to the lack of comparative mechanisms of cooperation between those small island States, even though they face similar problems and opportunities for disaster reduction.

33. Natural disaster reduction contributes, as a cross-cutting issue, to poverty alleviation through sound environmental management, the protection of natural resources and the achievement of sustainable development. The implementation of Agenda 21, the pursuit of concrete progress with regard to the Programme of Action for the Sustainable Development of Small Island Developing States, and the efforts to attain the goals and objectives of the International Decade for Natural Disaster Reduction (1990-2000) must go hand in hand.

34. The priority areas need to be addressed through coherent national programmes that aim to achieve the targets of the International Decade for Natural Disaster Reduction by the year 2000, while at the same time implementing chapter 2 of the Programme of Action for the Sustainable Development of Small Island Developing States. Not all small island States have yet been able to establish these programmes. This, together with the generation of the necessary policy support for disaster-reduction activities, is a particular priority need. In addition, consolidation and further strengthening of regional cooperation mechanisms in the Pacific and the Caribbean are required.

B. Recommendations for action

At the national level

35. Priority areas: (a) Improve the use of traditional systems for disaster reduction and preparedness; and (b) develop appropriate national insurance programmes.

At the regional level

36. Institution building: (a) Formalize and strengthen cooperation arrangements at the regional level through the designation of a regional policy body for disaster reduction; operationalize working arrangements for disaster mitigation, preparedness and response; and consolidate existing disaster-

reduction programmes; (b) consider the establishment of an interregional mechanism for training in disaster reduction, in particular by facilitating liaison between existing institutes and programmes.

At the international level

37. Institution building: (a) Provide support for the establishment of a mechanism for interregional cooperation and exchange of small island States in disaster reduction, in particular in training, institutional development and disaster-mitigation programming; and (b) establish an international programme on disaster reduction in small island States to facilitate the implementation of disaster-reduction programmes and to provide a framework for cooperation and exchange in support of disaster reduction in small island States.

38. Research: Provide support for the targeted research and further development of knowledge in the following thematic areas for building risk-reduction capacities in small island States:

(a) Insurance as a preventive and mitigating tool for disaster reduction;

(b) Telecommunications and information management as a tool for disaster reduction;

(c) Limits and opportunities for the establishment of national disaster emergency funds and emergency administrative procedures;

(d) Evaluation of constraints in small island developing States' access to reliable data, disaster-specific knowledge and technology;

(e) Review of the linkages between disasters, development and environment, including the development of methods for systematic appraisal of developments in relation to disaster risks;

(f) Analysis of the linkages between global climate change and the characteristics and occurrence of natural hazards in small island States.

V. TELECOMMUNICATIONS

A. Major additional findings

39. SIDS as a group have relatively well-developed internal networks. At the country and regional levels, however, there are marked differences. Internal networks are least developed in the least developed and the archipelagic SIDS. The extent of integration into international networks also varies between regions and countries. There remains plenty of room for further growth and improvement of telecommunications in all SIDS. Even where it is most developed, for example, Singapore and Malta, no saturation of traditional and new services is on the horizon.

40. Aside from resource constraints for expansion and modernization, SIDS face a number of problems in the area of telecommunications: (a) poor maintenance of

equipment owing to poor planning and unorthodox installation practices; (b) frequent damage done to telecommunications infrastructure by hurricanes; (c) increasing cost of human resources development owing to rapid change in technology and techniques which call for higher calibre trained personnel; (d) poor management owing to monopolistic structures and inadequate human resources; (e) high tariffs for telecommunication services owing to monopolistic structures; (f) high per capita cost of infrastructure, especially in the archipelagic SIDS, with few benefits from economies of scale.

B. Recommendations for action

At the national level

41. Policy: (a) Define clear universal service objectives and specify how, within prevailing conditions, they can be achieved; consider imposing preconditions for franchising or privatization of lucrative services such as mobile communications or international services, for instance by stating obligations to develop rural telecommunications in the licensing conditions of new operators; (b) where public or private telecommunications monopolies still exist, take steps to create a competitive environment through restructuring and liberalization of service provision and market access; (c) make greater efforts to take advantage of new international telecommunication projects and institutions such as WorldTel.

42. Institutional development: Create an adequate regulatory entity to assure harmonious growth of an increasingly complex and rapidly changing industry.

43. Investment: Increase investment in telecommunications development in order to increase the penetration of basic telecommunications facilities to achieve universal availability of those services and to facilitate the introduction of new services for the information society of the twenty-first century.

At the regional level

44. Policy: Maintain and strengthen communications and business links on a regional and subregional basis with their larger neighbours in the continental shelves, as well as with development partners abroad.

At the international level

45. Finance: (a) Assist SIDS in identifying the best ways and means of securing financial assistance from different sources; facilitate understanding of the requirements and obligations of each party (government, development partners, private sector); (b) encourage the World Bank and the regional development banks to systematically fund a series of projects over a number of years to finance telecommunications development where most urgently needed.

46. Allocation criteria: Encourage the development banks to work together to develop a common set of criteria to be used when evaluating potential projects.

VI. AIR TRANSPORT

A. Major additional findings

47. The majority of SIDS have their own airlines; some, particularly in the Pacific and the Caribbean, that do not are co-owners of a regional airline, notably Air Pacific and Leeward Islands Air Transport, respectively. In addition to national and regional airlines, SIDS are served by foreign carriers: the Caribbean SIDS by North American, European and some other airlines; the Pacific SIDS essentially by Air New Zealand; and the African SIDS essentially by European airlines.

48. Owing to inadequate information, a thorough assessment of the viability of SIDS airlines could not be made. Financial information available for about one half of the scheduled airlines of the Caribbean and Pacific SIDS indicates that in most cases their recent operations have not been profitable.

49. The services provided by national and regional airlines of SIDS vary widely. Some airlines in all the regions provide services to other SIDS and to some continental countries in their regions. Singapore, Malta, Cyprus and Bahrain are among the best served SIDS. At the regional level, with important exceptions in all regions, the best served SIDS are those in the Caribbean and the least served those in the Pacific. For most Pacific and African SIDS, service frequencies on international routes are low.

50. In the interest of public health, most SIDS adopt "in quarantine" measures as defined by the World Health Organization (WHO); some also require disinfecting of aircraft. With regard to safety, SIDS largely share the same concerns as other developing States, although the extreme weather conditions experienced by a number of SIDS may pose additional problems. Through the International Civil Aviation Organization (ICAO), agreement has been achieved on the necessary level of standardization for the operation of safe, regular and efficient air services. This has resulted in high levels of reliability in all the various areas that collectively make up international civil aviation.

51. Since the Barbados Conference, there has been significant air transport development affecting Caribbean SIDS at the government level. The Association of Caribbean States (ACS) adopted a Declaration of Principles on Tourism, Trade and Transportation and Plan of Action in August 1995 in which they stressed the importance of the principles of easy access and equal opportunity to affordable air (and maritime) transportation as indispensable factors in the economic integration of the ACS region. In the Pacific, no specific air transport proposals have yet emerged.

52. Significant developments at the airline levels in the Caribbean include privatization and mergers of existing airlines, formation of commercial alliances among airlines and the creation of a new airline. In the Pacific, there has been an expansion of services of one airline, increased commercial links among some airlines and various cooperative arrangements between some of the inter-island carriers on aircraft sharing and sharing of seats on individual flights.

53. With regard to innovative, energy-efficient and low-cost air transport solutions, no significant progress has been made.

54. As a result of increased costs and competition, structural changes are taking place in the air transport industry at the world level. These include the privatization of many government-owned airlines, the formation of commercial alliances between airlines and various forms of inter-airline cooperation. Many developments in international air transport will inevitably affect SIDS. For example, with international airlines being encouraged to use their own commercial judgement, their services to and from SIDS will become increasingly based on unpredictable and rapidly changing market forces rather than on more constant public service considerations. Governments of SIDS may face the difficult task of weighing the need to protect or subsidize their national airlines against the need to allow greater market access for competing airlines to achieve other national objectives such as the development of tourism. In addition, the airlines of SIDS will have difficult decisions to make on the extent to which they should cooperate with one another and with the major international airlines, bearing in mind that those airlines may also be their competitors.

55. For SIDS, the environmental problems of major significance are those associated with: (a) airport construction and expansion: loss of land and soil erosion; impact on water tables, river courses and drainage; and impact on flora and fauna; (b) airport operations: water pollution caused by inadequate treatment of contaminants in airport wastewater or by leakage from storage tanks; disposal of environmentally harmful materials used in aircraft servicing and maintenance; and disposal of waste from the airport and incoming aircraft.

B. Recommendations for action

At the national level

56. International standards: As required by the Convention on International Civil Aviation (art. 38), the many SIDS that have not responded to ICAO indicating their positions with regard to ICAO standards and recommended practices (contained in the annexes to the Convention) should indicate their compliance with or differences from those provisions.

57. Technology: Familiarize themselves with current technological developments of relevance to air transport, such as communications, navigation, surveillance/air traffic management (CNS/ATM) systems and the ICAO flight safety programme, with a view to ensuring active participation on an individual or subregional basis in global programmes related to these developments; seek guidance from ICAO in the formulation of projects, location of donors for the funding of such projects, and implementation of projects.

58. Human resources development: Introduce, wherever possible, human resources development programmes in such areas as air traffic control, airport management, aviation security, flight operations and airworthiness, air transport regulation and air law.

59. Information: Participate more actively in the ICAO statistics programme, which provides data on air transport that would be of value to SIDS in their future planning. To that end, ensure that their international airlines file with ICAO their traffic reports, cost statistics and financial statements, as required by the Convention on International Civil Aviation (art. 67).

At the regional level

60. Formulate regional projects for the evaluation and creation of air transport master plans for the following groupings of SIDS: Caribbean SIDS; Pacific SIDS; African SIDS off the west and east coasts, respectively. This recommendation excludes the other SIDS - Maldives, Bahrain, Cyprus, Malta and Singapore. It may be appropriate to include Maldives in the regional project for African SIDS off the east coast. These projects would cover all the action items identified in the Programme of Action and would seek to:

(a) International standards: Ensure compliance with international standards and recommended practices and implementation of measures related to the ICAO flight safety programme;

(b) Economics: (i) Address problems associated with distance and isolation (such as relatively high transport costs, including both fuel and insurance); (ii) study the impact on SIDS of commercial changes taking place in the air transport industry, including exploring the scope for greater cooperation (both commercial and technical) between airlines within the SIDS grouping concerned and with other international airlines; (iii) study the impact on SIDS of changes taking place in the economic regulation of air transport, including exploring the scope for more regional cooperation with regard to the regulatory aspects of air transport, such as joint negotiation of air transport agreements; and (iv) develop strategies for dealing with potential conflicts between SIDS air transport policies and their tourism policies;

(c) Capacity-building: Establish or improve programmes in aviation management skills and other suitable skilled occupational categories;

(d) Impact of technological changes: Examine the impact on SIDS of technological changes such as CNS/ATM systems and new developments in aeronautical meteorology, including the World Area Forecast System (WAFS) satellite broadcasts;

(e) Finance: Address difficulties experienced in obtaining funding for aviation projects;

(f) Communications: Improve the reliability of aviation communications facilities.

At the international level

61. Research: Sponsor studies, for example, by aircraft manufacturers, to investigate the feasibility of developing innovative energy-efficient and low-cost transport solutions that would be of benefit to SIDS.

VII. MARITIME TRANSPORT

A. Major additional findings

62. The maritime transportation issues are not uniform for all SIDS. The group is significantly diverse in geographic location, natural endowments and stages of economic development. Therefore, the problems of a country such as Singapore, with its excellent geographic location, the second largest container throughput in the world, are very different from those of most other SIDS. Estimates of total freight costs for SIDS are more than 45.5 per cent higher than developed market economies. Moreover, most small remote islands incur even higher freight costs as a percentage of import value.

63. The impact of open-registry fleets creates a statistical bias on the analysis of the fleet capabilities of the SIDS group. Open registries are legal mechanisms used to attract merchant tonnage from countries with more stringent safety regulations and higher operating costs to countries offering more flexibility and lower registration fees. The benefits for the open-registry countries are additional tax revenues and employment opportunities when ship management companies are established within the country. The main benefits, however, remain with the nationals of the owners because the share of tonnage owned by open-registry nationals is minimal. Within the SIDS group, open-registry tonnage represents 77.2 per cent of the total. Thus, a more accurate analysis of the SIDS fleets should focus on the remaining 30.6 million d.w.t.

64. The age of the SIDS fleets is another qualitative factor worthy of note. Seventy per cent of the merchant fleet is 15 years old and over. This ageing fleet leads to higher operating costs, as repair and maintenance rapidly increase with age, schedule delays and unreliability and greater environmental risks associated with obsolete vessels. In brief, the SIDS fleet is ageing and needs replacement.

65. SIDS need to increase their capabilities for serving their own trade. This is desirable because most of the fleet is owned abroad. While this provides foreign exchange earnings, employment for seafarers and diversification, it is not fully complementary to the trading requirements of SIDS because most manufactured goods move by container or general cargo ships. The former represent only 3.6 per cent and the latter 17.5 per cent of the SIDS fleet. If the vessels registered in Singapore and the two Caribbean countries extending open-registry facilities (Antigua and Barbuda and Saint Vincent and the Grenadines) are excluded from these two essential ship types (container ships and general cargo) the SIDS fleet is minimal.

66. Restructuring trends in the international liner shipping industry are also a factor affecting the transportation capabilities of many SIDS. Over the past decade, consolidation and cooperative commercial agreements between large container operators have resulted in a concentration of services. This has created economies of scale and encouraged the expansion of hub and spoke service patterns between major trading areas. For SIDS, however, the impact has been to increase the need for transshipment port services, acquiring vessels with container lifting capabilities, investing in electronic data interchange (EDI) technology and training management personnel. Without investments, particularly

in ships and port facilities, the ability of many SIDS to trade effectively and sustain development will be marginal.

67. In brief, SIDS are more than ever dependent on trade and efficient shipping services. Shipping services, however, continue to deteriorate because of inappropriate and ageing ships, ever-increasing concentration of liner shipping companies and the expansion of hub ports that require transshipment services.

B. Recommendations for action

At the national level

68. Investment incentives: (a) Promote investments in modern ships through fiscal policies that encourage investment, for example, rapid depreciation allowances, investment credits, and reducing personal income taxes for seafarers; (b) encourage the development of ship repair facilities through favourable fiscal policies and customs exemption for essential equipment and ship components; (c) support port infrastructure investments through direct loans or by guaranteeing loans from development agencies; (d) in the case of SIDS with very small island archipelagoes, consider the need for a licensing scheme and mail subsidies to private ship companies.

69. Institutional development: (a) Strengthen or encourage shippers' councils to act as focal points for the protection of shippers' interests; (b) participate actively in regional port management associations.

70. International legal instruments: Ratify United Nations conventions pertaining to the maritime sector (Convention on a Code of Conduct for Liner Conferences, United Nations Convention on Conditions for Registration of Ships, United Nations Convention on International Multimodal Transport of Goods, United Nations Convention on the Carriage of Goods by Sea, 1978 (Hamburg Rules), International Convention on Maritime Liens and Mortgages, 1993).

71. Human resources development: Upgrade maritime safety and environment administration by advanced training through the International Maritime Organization (IMO) and by sending government officials to specialized training and academic institutions such as the World Maritime University at Malmö.

72. Maritime safety: Gradually phase out existing over-age vessels and ban imports of ships exceeding 15 years old that cannot meet minimum IMO safety regulations.

73. Upgrade maritime safety and environmental protection procedures: Consider adopting and implementing the international instruments that form the basis of the Paris Memorandum of Understanding on Port State Control and applying the international instruments adopted by the Paris Memorandum of Understanding on Port State Control, including the International Convention on Load Lines, 1966; the Protocol of 1988 relating to the International Convention on Load Lines, 1966; the International Convention for the Safety of Life at Sea, 1974; the Protocols of 1978 and 1988 relating to the International Convention for the Safety of Life at Sea, 1974; the International Convention for the Prevention of

Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto; the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978; the Convention on the International Regulations for Preventing Collisions at Sea, 1972; and the Convention concerning Minimum Standards in Merchant Ships, 1976 (ILO Convention No. 147).

At the regional or subregional level

74. Expand the maritime capabilities of the region or subregion: (a) Accede to the Convention on a Code of Conduct for Liner Conferences; (b) form an intraregional liner freight conference; (c) prevent the importation of further obsolete ships into the region; (d) update and harmonize the maritime legislation of various SIDS at the subregional and national level with a view to providing a legal framework for more effective maritime transport; and (e) upgrade and strengthen the procedures for inspection of ships registered in the region.

75. Provide an improved intraregional sea transportation service: (a) Establish a ship finance division within the regional development banks in partnership with a foreign ship mortgage bank; (b) give berth preference to vessels carrying perishable foodstuffs; (c) give preferential berth treatment to regular traders; (d) improve ship-to-shore radio communications; (e) form small shipowners' regional associations.

76. Reduce overall sea transportation costs by improving shipping infrastructures: (a) Investigate and remedy port congestion, and critically examine future capital investments for major port development projects; (b) review and streamline customs and documentation procedures; (c) investigate and modernize port labour working practices.

77. Protect shippers' interests: (a) Establish shippers' councils at the regional level; (b) encourage the formation of open conferences for liner ships serving the regions; (c) encourage the shippers' councils and small shipowners' associations to use the services of a maritime transportation centre; (d) encourage shippers to negotiate favourable rates directly with shipowners for indirect services using existing North-North and North-South routes and ensure adequate services also for commodities with special transport needs; (e) promote slot charter agreements and transshipment services at required frequencies.

78. Promote cooperation among traders by: (a) Encouraging cooperation between traders to consolidate LCL (less than container load) shipments for economy and convenience and to negotiate better rates; (b) promoting the exchange of information and market intelligence between traders to identify opportunities for cooperation in obtaining shipping and other transport services, and developing databases for maintaining information on available shipping services, particularly relating to South-South opportunities; (c) encouraging traders, acting together, to discuss their South-South transport needs with local transport companies, ship operators and entrepreneurs interested in investing in shipping; (d) encouraging traders to enter into agreements on the minimum quantities required to be shipped, to justify the establishment or improvement of services.

79. Improve maritime managerial skills and knowledge in the region: (a) Establish a maritime transportation centre with two divisions: a maritime safety administration and an economic policy division; (b) provide subregional short training courses in shipping and port management through schemes such as the Trainmar programme of the United Nations Conference on Trade and Development (UNCTAD); (c) encourage the regional shipping lines to enter into joint ventures with foreign shipowners with a strong training component in the contract of agreement; (d) undertake a manpower study to assess the training needs of the region and supplement regional training capabilities, as appropriate; (e) establish a system for the examination and issuance of certificates of competency.

Notes

1/ Report of the Global Conference on the Sustainable Development of Small Island Developing States, Bridgetown, 25 April-6 May 1994 (A/CONF.167/9 and Corr.1 and 2) (United Nations publication, Sales No. E.94.I.18 and corrigenda), chap. I, resolution 1, annex II.

2/ The report of the Secretary-General on the protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources (E/CN.17/1996/3) uses the Agenda 21 terminology "coastal area". The same terminology is used here for the sake of consistency and to avoid confusion. The terminology used in the Programme of Action is "coastal zone". Issues related to the exclusive economic zones of small island developing States are not dealt with here. Those issues are dealt with in the report of the Secretary-General on the protection of the oceans, all kinds of seas ... (E/CN.17/1996/3).